



February 14, 2005

Mr. Art Williams  
Louisville Metro Air Pollution Control District  
850 Barret Ave., Suite 200  
Louisville, KY 40204-1745

**RE: Formal Comments Regarding STAR Program Draft Regulations**

Dear Mr. Williams,

Thank you for the opportunity to comment on the proposed STAR program. Rohm and Haas believes in minimizing emissions of all components of concern, especially Hazardous Air Pollutants (HAPs). Projects already under way will result in about an 85% reduction in HAPs from our facility just for the 2002 to 2007 time period.

Rohm and Haas believes there are portions of the STAR program that can be improved to allow for more beneficial use of LMAPCD, Air Board, and industry limited resources to improve air quality.

A summary of the issues follows. Additional details are presented in the attachment to this letter.

- **Following our current emissions reduction efforts, we cannot meet the STAR goals and we cannot meet the Standard for at least 3 chemicals. We do not know of a cost effective way for further reductions.**
- **The enhanced LDAR requirements are not optional and will cost us an estimated \$200,000 per year for 500 lbs of HAP emissions reduced (an equivalent rate of about \$800,000/yr/ton).**
- **The proposed variance process for operating above the standards defined in the regulation will establish an untenable situation for doing business in Louisville and it will discourage any additional investment by Rohm and Haas in the future.**

**We cannot meet the STAR goals and we cannot meet the standard**

Best Available Control Technology, including LDAR programs, will be in place for all Rohm and Haas operations by the end of 2006. Despite this achievement, we will not be able to meet the STAR goals or standards for some of our chemicals. The primary source of concern will be fugitives. Three changes that need to be addressed are:

- Adopt modeling methods that more accurately forecast the impact of fugitives:

Ambient air at a fence line is dominated by fugitives. The EPA air models in fact are not optimized to model fugitives. The models are designed to model stack emissions. They are documented to overstate the impact of fugitives by a factor of about 2. The method for addressing this overestimation of the impact of fugitives developed by the Texas Natural Resource Conservation Commission should be allowed.

- Apply results of modeling to where people actually live; not a fence line:

Our fence line includes the Ohio River, industrial neighbors, and streets. Applying a chronic 70 year, 24 hr/day, 365 days/yr exposure criteria to this fence line is unreasonable.

The Board has the authority, under KRS 77.155(2), “to fix reasonable limits ... for particular air contaminants ... [which] may cause or have tendency to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.” Accordingly, it is not reasonable to regulate uninhabited land or other areas where there is not detriment to the public or to people.

- Revise the numerical level of the standard:

Rohm and Haas supports a goal of no more than a one in a million additional risk. However the standard needs to be adjusted to no additional risk greater than 100 in a million.

This is the risk level used by EPA. EPA states that a risk of no more than 100 in a million provides “an ample margin of safety with consideration of costs, technical feasibility, and other factors”. Use of this standard does not affect the goal of an additional risk of no more than 1 in a million.

**The enhanced LDAR requirements are not cost effective nor optional**

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We will be subject to, and have in place, LDAR programs for all Rohm and Haas operations by the end of 2006. The enhanced LDAR program does not provide for additional cost effective reduction of HAPs.

Rohm and Haas requests the enhanced LDAR regulation be removed from the STAR program.

Rohm and Haas endorses the overriding philosophy of the STAR program of identifying the emissions of concern and allowing companies to identify the most effective activities to reduce these emissions. LDAR programs are but one of the options to reduce emissions. In many cases LDAR programs are not cost effective.

Recently the DC Court of Appeals remanded an EPA LDAR program that did not show economic effectiveness. Regulation 1.21 is one of the most costly yet least beneficial programs for reducing emissions for companies.

Rohm and Haas' preliminary estimates indicate this regulation may cost up to \$800,000 per year per ton of equivalent HAP emissions reduced.

As drafted, this regulation is not optional, and economic effectiveness is not considered. Rohm and Haas asserts that this is a costly program that results in little real emission reduction; resources would be better spent on other programs with more significant emission reductions.

This regulation is clearly neither reasonable nor aligned with the rest of the STAR program. It should be removed from the STAR program at this time.

**The proposed variance process for operating above the standards will establish an untenable situation for doing business in Louisville**

Rohm and Haas treats standards and compliance with regulations very seriously. Obtaining a variance to operate outside a standard, even though legal, feels like operating out of compliance.

The variance process will discourage any additional investment by Rohm and Haas in Louisville in the future. Delays in obtaining permits, concern over needing a variance in the first place, and uncertainty of how the Board will vote make for an untenable business climate.

The request is to change the standard to an additional risk of no more than 100 in a million. This will allow LMAPCD to review and influence the majority of projects which are expected to be in the range of 1 to 100 in a million for an additional risk for a manufacturing facility in Jefferson County. Action by the Board would not be required

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unless a project or facility were unable to demonstrate an additional risk of less than 100 in a million.

The current version of STAR will create an unproductive bureaucratic exercise. Based on our and other companies preliminary modeling, numerous variances will be presented to the Board. And in most cases, companies may not be allowed to begin working on capital projects, including projects that reduced emissions, until the Board has acted.

We look for STAR to help facilitate activities that reduce emissions of HAPs, not impede them.

*An additional exemption to fast track permits for projects that reduce emissions of HAPs.*

Rohm and Haas request is for an additional exemption that allows for fast track permitting without Board approval for activities that reduce emissions of HAPs.

The STAR program currently requires modeling and judgment approval by either the LMAPCD staff or the Board for installation of activities that ultimately reduce the emission of HAPs. This is contrary to the entire purpose of the STAR program.

While not all projects will deliver the goal of no more than an additional of risk of 1 in a million, any project that helps advance toward that goal should be given priority by STAR.

This is an opportunity for an enhanced partnership between the city, LMAPCD, industry, and the community.

Sincerely,

Jane G. Bowen  
Plant Manager  
ROHM AND HAAS COMPANY,  
LOUISVILLE PLANT

cc: Don Neman, Rohm and Haas Company  
Jonathan Trout, LMAPCD  
Karen Cassidy, RN, Ed.D., Chair, LMAPCD Board

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Lee Howard, Chair, Strategy Committee, LMAPCD Board  
Carolyn Embry, Strategy Committee, LMAPCD Board  
Barbara Sexton Smith, Strategy Committee, LMAPCD Board  
Lewis Hammond, LMAPCD Board  
Sandra Withers, LMAPCD Board  
Nadir Al-Shami, M.D., LMAPCD Board  
Jerry Abramson, Mayor  
Joan Riehm, Deputy Mayor  
Bruce Traugher, Secretary, Community Development  
Kelly Downard, Metro Council  
Denise Bentley, Metro Council  
Mary Woolridge, Metro Council  
Joe Reagan, GLI  
DeVone Holt, GLI  
Tim Corrigan, Esq., GLI  
Pat Moran, Esq., GLI  
Lloyd Cress, Esq., Commissioner DEP  
Scott R. Smith, EPPC  
Rudy Underwood, ACC

**Attachment**  
**Rohm and Haas Company**  
**Formal Comments Regarding the STAR Program Draft Regulations**

**General Comments**

The STAR regulations are different and much more stringent than the approach of the West Louisville Air Toxics Risk Assessment (WLAT) developed in conjunction and with complete approval by USEPA. The STAR program basically ignores all of EPA's effort and peer-reviewed science that went into the original WLAT.

**General Comments - Administrative Process**

Chapter 77 of the Kentucky Revised Statutes provides for creation of the Louisville Metro Air Pollution Control District ("District"). In KRS 77.155(2), the Board has been given the power, "by regulation, to fix **reasonable** limits, by weight or otherwise, for particular air contaminants or other material which in the opinion of said Board may cause or have tendency to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public" (emphasis added).

In adopting regulations, the Board must adhere to the prescriptions of KRS 77.185 that requires the Board to comply with formal notice and comment requirements, provide written responses to comments, and provide an assessment of the regulatory impact on the regulated community and the public of each proposed action. The regulatory impact assessment must include the estimated costs and savings associated with the action, the feasibility of all alternatives considered, and a comparison with minimum or uniform standards under the Clean Air Act or other federal requirements.

District staff has revised the STAR Regulations during the 30 day comment period by revising Regulation 5.01, Section 1.6.4. There was no clear indication on the website that this amendment had been made and there was never any attempt to meet the requirements of the statute or the District's own regulation regarding 30 day notice. Accordingly, the notice is defective and the District needs to re-publish notice of the entire package with the revisions it has placed on its website, and any other changes of which the public has not been provided notice. Moreover, considering the volume of comments that had already been made on the draft package, and the uncertainty still prevalent among industry and citizens trying to understand the regulation, the 30-day comment period fails to allow a "fair and reasonable opportunity for review and comment . . ." as required by the statute (KRS 77.185(2)). Accordingly, a longer period for comment is required.

In addition to the procedures process outlined in KRS Chapter 77, the District has certain obligations under KRS 224.20-130. This statute, which sets forth the relationship between the Kentucky Department of Environmental Protection and the LMAPCD, also places procedural obligations upon the District prior to enactment of any regulation. The

District is required to “submit prepared regulations and standards to the cabinet for prior concurrence.” At this point in time, the Cabinet has not granted prior concurrence to the regulatory package and, therefore, the Board is as yet without power to adopt the regulations.

### **General Comments - Legal Authority**

As noted above, there are some limitations on the Board’s power to adopt regulations. The Board may only set “reasonable limits, by weight or otherwise for particular air contaminants . . .”. Based on the preliminary modeling and analysis performed by Rohm and Haas, the impact of the proposed package is not “reasonable.” The regulatory impact analysis has not demonstrated with any certainty what costs will be incurred by companies to meet the levels required by the regulation. Rohm and Haas has estimated capital costs to implement the STAR program at over \$500,000 per ton of emissions reduced. For the Leak Detection and Repair Program alone, this number rises to \$800,000 per ton of emissions reduced by those efforts. This cost/benefit analysis cannot be considered “reasonable” either under the Board’s or under EPA’s definition.

Furthermore, it is not even clear that the proposed regulatory package actually sets “limits” as proposed, and as authorized under KRS 77.155(2). The proposal sets forth a series of actions—the preparation of inventories of TACs, analysis and modeling of the TACs, and then the running of formula to derive a number—that becomes a starting point for an industrial facility’s “limit.” After that process, theoretically, the staff will meet with the company to determine what controls will be required and then a limit for a unit would be set. This is an inappropriate delegation to the staff and is outside of what was ever contemplated by the statute.

A third element necessary for the Board to adopt any regulation is a finding that the contaminant may cause “injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.” In the past, the Board has typically adopted emission regulations addressing a single pollutant (e.g., benzene), or source type (e.g., boilers) that it found caused harm. The STAR Program would regulate approximately 200 chemicals and myriad source types. The Board has yet to make a finding that any, let alone each and every one, of these contaminants on the various lists, may cause or have a tendency to cause injury, detriment or annoyance to the public. Because the Board has failed to make appropriate findings with respect to the regulated TACs, it will be unnecessarily regulating very minor emissions of pollutants from particular facilities that in no way cause injury or nuisance to the public. It is the Board’s obligation to review every chemical on the various lists and make an affirmative determination, based on some scientific basis, that the chemicals that are being regulated meet the standards established by the statute.

### **General Comments – Regulatory Impact Analysis**

KRS 77.185(2)(e) requires that the District prepare a regulatory impact assessment. The assessment is required to include the “estimated costs and savings associated with the action,” and the “feasibility of all alternatives considered.” In

addition to the statutory requirements, the Board has adopted regulations that further define its obligations in assessing the regulatory impact. District Regulation 1.08, 7.2.1 states that the estimated costs and savings associated with the proposal must include the “estimated capital and operating costs and savings associated with compliance with the proposed action for affected facilities.” In defining the feasibility of alternatives, the District is required to describe the: (1) approach for reducing emissions; (2) the estimated level of emission reductions; (3) the available pollution prevention measures; and (4) the reason that the alternative was chosen or not chosen. (Reg. 1.08, 7.2.2.4)

A reading of the District’s Regulatory Impact Assessment demonstrates the failure of this document to capture the information to which the Board has obligated itself under this regulation. While the District has provided estimates of pollution control costs based on information contained in government reports, it has not even attempted to estimate the capital and operating costs, let alone savings if there are any, associated with this program. The very general estimates that the staff has included in the RIA are clearly not in conformance with the obligations placed upon it by the Board through this regulation.

Similarly, the staff has failed to provide sufficient information on the estimated level of emission reductions expected from the program, nor pollution prevention measures that are available. Had the staff done the research to provide companies with pollution prevention measures that could be used to reduce emissions, without costly emission control devices, the impact on industry may not have been so severe as it appears under the current program.

In meetings with District staff, they have indicated that they have reviewed every toxic program in the country before developing the STAR proposal. In that drafting process, the staff reportedly relied heavily on the Michigan and California programs and at the same time, rejected many of the provisions of those programs, as well as Texas, as examples. However, also based on District comments, it is clear that they rejected a number of other alternatives that have been adopted in many other jurisdictions. Nowhere has the staff explained the basis for its decisions to reject these other programs. This clearly violates the District’s obligation to give a reason why “an alternative was chosen or not chosen.” The failure to provide this information deprives industry and the public of basic factual underpinnings of the proposal, thus denying them the opportunity to cogently comment on the proposed regulations.

### **General Comments - LDAR**

This enhanced LDAR regulation should be removed from the STAR program.

One of the sound philosophies of the STAR program is to use actual HAP emissions data, including fugitives, and then, after modeling, allowing companies to identify and implement the most cost effective activities to reduce HAP emissions. We approve and support this approach.

Regulation 1.21 is a dramatic deviation from this reasonable philosophy. As proposed, regulation 1.21 is mandatory, independent of the cost or benefit.

Although there is no court decision interpreting the Board's obligation to assess the costs and benefits of an LDAR program, the U.S. Court of Appeals for the D.C. Circuit has interpreted EPA's obligation to do so in establishing MACT standards. The Board's general obligation to assess the reasonableness of costs and savings associated with a regulation under KRS 77.185(2)(e) is similar to EPA's obligation, and a Court would likely look to this case in reviewing the Board's obligations. In *Arteva Specialties v. EPA*, 323 F.3d 1088 (D.C. Cir. 2003), the court remanded EPA's equipment leak provisions in 40 CFR Part 63, Subpart JJJ due to lack of a cost effectiveness and practicality review.

Regulation 1.21 will require vast expenditure of resources without any appreciable reduction in HAP emissions beyond an established LDAR program. Rohm and Haas estimates cost of compliance with regulation 1.21 at several hundred thousand dollars per year per equivalent ton of HAP emission reduced.

LMAPCD has not made a cost effectiveness determination for this regulation on a component by component basis as required by the *Arteva* decision. Regulation 1.21 should be removed until such time as a cost effectiveness study on a component by component basis can be conducted that demonstrates an acceptable result.

Rohm and Haas is committed to implementing cost-effective LDAR strategies that meet the requirements of the Clean Air Act. However, a mandatory regulation that has not been subjected to a component by component cost effectiveness review per the *Arteva* decision should be removed from the proposed STAR program.

### **Specific Comments Regarding the STAR Program Draft Regulations**

#### ***Regulation 1.02 Definitions***

<b>Section</b>	<b>Comment</b>
1.7	The definition of "ambient air" is contradictory. The first sentence states that it is "that portion of the atmosphere....to which the general public has access." The second sentence states that it "also includes the atmosphere.... that is beyond the property line of that stationary source regardless of whether the general public has access." Since these toxic regulations are based on risk levels associated with exposures for 70 years, 24 hours per day, areas where the general public does not have access should not be included. An area where the general public does not have access could not possibly have a situation of 70 year, 24 hour per day exposure. In addition, in KRS 77.155(2), the Board has been given the power, "by regulation, to fix reasonable limits, by weight or otherwise, for particular air contaminants or other material which in the

	<p>opinion of said Board may cause or have tendency to cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.” Accordingly, in order to set a “reasonable limit” the Board must show that a “considerable number of persons or ... the public” will be adversely affected. The definition of “ambient air” should therefore reflect that the public has access to that air. This definition should mirror the one in 401 KAR 50:010 Section 1(8) and should read:</p> <p><i>“Ambient air” means that portion of the atmosphere, external to buildings, to which the general public has access.</i></p>
1.18	<p>The definition of “cancer” should be the same as in the Agency for Toxics Substance and Disease Registry (ATSDR) Glossary. There is no basis for using a different definition, it only creates confusion. It should read:</p> <p><i>“Cancer” means any one of a group of diseases that occur when cells in the body become abnormal and grow or multiply out of control.</i></p>
Add	<p>The definition of “cancer risk” needs to be added to this regulation. This term is used often in the regulations and should be specifically defined. It is also one of the most misunderstood concepts that forms the basis for the regulation package. The definition should be: <i>“Cancer risk” means a theoretical risk for getting cancer if exposed to a substance every day for 70 years (a lifetime exposure). The true risk may be lower.</i> This is the same definition as in the ATSDR Glossary.</p>
1.28	<p>Change the definition of “emission standard” to be consistent with the current APCD definition. Federal, state, local laws and regulations, District permits, and Board Orders are all legally enforceable, so the phrase that contains them does not need to be included in the definition. The definition should read:</p> <p><i>“Emission standard” means a legally enforceable requirement that limits the quantity, rate, or concentration of emissions of air contaminants in to ambient air on a continuous basis, including any requirement related to the operation or maintenance of a process or process equipment to assure continuous emission reduction, and any required design, equipment, work practice, or operational standard.</i></p>
1.30	<p>The definition of “Excess emissions” should read: <i>“Excess emissions” means emissions that exceed an applicable emission standard.</i> Other proposed language includes TACs, but the changes to 1.07 are not specific to TACs so there is no reason to complicate this definition with this language. Also, to define 125% of a normal emission rate as excessive is totally arbitrary.</p>
1.60	<p>The definition of “process” should not include the use of a material. The significance of this definition is the determination of what constitutes new or modified processes and therefore what changes require permitting. Changing the use of a material has not historically triggered permitting. Adding this</p>

	<p>requirement does not add value. Other requirements of the STAR regulations would still require notification of the APCD if the change was significant. For example, if changing the use of a material resulted in the worst case plantwide model of a TAC to result in a higher maximum concentration, then the company would have to resubmit the new model. If the change did not affect the model, then no notification would be necessary and rightly so.</p>
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***Regulation 1.06 Stationary Source Self Monitoring, Emissions Inventory Development, and Reporting***

Section	Comment
General	<p>The various reports that are due by July 15 of each year will require a substantial amount of time to prepare. This effort will conflict with the preparation of the TRI report that is due each year on July 1. Rohm and Haas requests that the July 15 deadlines be changed to October 15 so that the workload can be spread out over the year.</p>
4.2	<p>This requirement exempts the initial transfer of gasoline into the fuel tanks of new motor vehicles at an automobile or truck assembly plant. The justification for this exemption is not given and is therefore arbitrary and capricious. Exemptions should be given based on an assessment that the risks of an operation are <i>de minimis</i> or control is not practical, not based on the facility where an operation occurs.</p> <p>Rohm and Haas has a gasoline dispensing facility on site that is used to refuel company owned vehicles. Regulation 6.40 is applicable to this operation, but throughput has historically been below the current monthly usage exemption. Therefore the number of vehicles refueled at the Louisville plant is many, many times less than the number fueled at any motor vehicle assembly plant.</p> <p>While it is true that vehicles fueled leaving an assembly line start with empty fuel tanks and those at the Rohm and Haas site have been previously filled, the total number of vehicles fueled on an assembly line is many, many times more than those fueled at a plant site each day. If fueling of the large number of vehicles from an assembly line is exempted, then the fueling of vehicles at any facility subject to the throughput exemption, with far less impact, should also be exempt.</p>
4.2	<p>This section requires that the report of the previous year's gasoline throughput, by grade, by month, for the previous calendar year of operation is due to the APCD by April 15 of each year. This requirement is in conflict with APCD Regulation 6.40, Section 1.3 that requires this same report within 30 days of implementation of that regulation and then every year thereafter. Regulation</p>

	<p>6.40 requires this report by January 15<sup>th</sup> of each year.</p> <p>This duplicative reporting requirement should be removed from Regulation 1.06 or removed from Regulation 6.40.</p>
4.2	<p>In addition to gasoline usage reporting, there is a requirement for cold cleaner usage reporting for owners or operators of gasoline dispensing facilities subject to Regulation 6.40. The additional requirement to report cold cleaner usage is arbitrary and capricious because it singles out gasoline transfer facilities, ignoring other facilities with cold cleaning degreasers. Regulation 6.18 (revised May 2003) provides regulatory requirements for operators of cold cleaners; these requirements are sufficient for regulating the low emitting units.</p>
5.1.3	<p>The definition of “Uncontrolled emissions” should be deleted. Uncontrolled emissions are defined as such regardless of “other process equipment that reduces emissions and that is vital to production of the normal product or to the normal operation of the process.” If process equipment (e.g. a collection device to retain valuable product in the process) is integral to the physical design and operation of an emissions source, then defining uncontrolled emissions without the use of that device would overstate potential emissions to such an extent that the concept of uncontrolled emissions would become meaningless, and therefore arbitrary.</p>
5.2.3.3	<p>The actual annual, average hourly and daily, and maximum hourly and daily emission rates for each listed TAC by process or process equipment is due to the APCD by 7/15/05 for Title V sources and each year thereafter. Rohm and Haas primarily uses batch processing at the Louisville site. Calculating actual hourly and daily emission rates for our inherently variable operations would be an onerous task for just one TAC, much less multiple TACs. We have estimated that it will take at least one man-year to develop such a calculation model for the plant. In addition, it will take at least one half a man-year annually thereafter to be able to provide this information to the APCD each year. All these costs will not result in any emission reductions; additional work will be required before reductions can be implemented. Moreover, average actual emissions data does not provide valuable information in itself. Impacts to the ambient air would be best estimated using maximum emission estimates. Similarly, maximum emission estimates should only be required for averaging periods relevant to an individual TAC. The current requirement places an unnecessary burden on subject facilities. (See next comment also.)</p>
5.4	<p>Maximum hourly and daily emission rates should only be required for reporting if they are related to the averaging period used in the benchmark ambient concentration (BAC). The intent of Regulation 1.06 appears to be for the APCD to receive additional information from industry so that they could model predicted ambient air concentrations. Therefore, only the data used in</p>

	<p>completing the model should be required by the regulation. For example, if the TAC is Butyl Acrylate, the averaging period is 8 hours. In this case the maximum 8-hr emission rate should be reported, but there would be no use for the daily emission rate. On the other hand, if the TAC is Ammonia (with an averaging period of 24 hours) then the maximum daily emission rate should be reported and not the hourly rate. Moreover, the Board's authority to require a facility to generate and submit information that is not related to compliance is uncertain.</p>
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***Regulation 1.07 Excess Emissions During Startups, Shutdowns, and Malfunctions***

<b>Section</b>	<b>Comment</b>
General	An implementation date needs to be added to this regulation so that facilities' reporting procedures can be revised. As written the regulation would require the new reporting methods the first day that it is effective. It would take 60 days to revise our procedure and train those that are responsible for reporting to the APCD.
2.3.1	Add the word "type" so that it reads "The duration, type and frequency of excess emissions during startups, shutdowns, malfunctions,".
2.3.9	Delete this section. The APCD does not have the knowledge to determine if excess emissions have exceeded a concentration in the ambient air that could reasonably have caused an acute non-cancer effect.
3.8.7	Delete this section or specify that the requested information for the frequency of excess emissions during startups or shutdowns during the previous 2 years is only required for the equipment involved in the event being reported.
4.1	A call to APCD should not be required if a call to 911 is made. Multiple agencies are already notified of a 911 call including the fire department, health department and the Metropolitan Sewer District. APCD should be included on this list.
4.8	It is not clear in this section if the extension of the written report due date leads to a total time of 45 days or 60 days.

***Regulation 1.20 Malfunction Prevention Program***

<b>Section</b>	<b>Comment</b>
3.7	The regulation needs to provide specific conditions under which the

	Malfunction Prevention Program can be discontinued. There is no need to have this at the total discretion of the District since it will in large part be based on the time elapsed since the last malfunction. A three consecutive year time period without a malfunction is more than sufficient to demonstrate that a Malfunction Prevention Program is no longer needed.
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***Regulation 1.21 Enhanced Leak Detection and Repair***

Section	Comment
	Note: The following comments concern Regulation 1.21 and assume that the Rohm and Haas comment to delete this regulation is ignored.
General	<p>Adding the requirements of 40 CFR 63 Subpart H (HON LDAR) to those already required by LDAR regulations applicable to facilities does not provide any greater control of TACs. The added requirements are only different, not more stringent. The biggest impact that the additional requirements of the HON LDAR will have is to unnecessarily complicate compliance efforts.</p> <p>On the other hand, if an LDAR program is not required by any other regulation and the APCD decides that a facility needs to implement one, then a HON or MON LDAR requirement would be acceptable.</p>
General	Rohm and Haas fully supports the formal comments submitted by the Greater Louisville, Inc. Air Toxics Task Force concerning Regulation 1.21. The wording for the regulation that was proposed by this group blends the requirements of the federal LDAR regulations with the additional requirements proposed by the LMAPCD. LDAR regulations are very complicated so clear explanations of where the federal requirements end and the local requirements begin is very important.
General	The District must fully explain the costs and benefits of the LDAR regulation in the Preliminary Regulatory Impact Assessment. It has not been demonstrated that the environmental benefits of the additional LDAR requirements justify the significant costs.
General	In its Regulatory Impact Assessment, APCD has failed to adequately document the cost effectiveness of the LDAR program. The appropriate measure of cost effectiveness for an LDAR program, as laid out by the U.S. Court of Appeals for the D.C. Circuit in <i>Arteva Specialties v. EPA</i> , 323 F.3d 1088 (D.C. Cir. 2003), is to analyze costs and pollution reduction on a component by component basis. Because there is no case interpreting APCD's cost benefit assessment obligations, and because the required cost benefit analysis for regulatory decision-making is similar under EPA's HAP program, a court

	<p>would look to the <i>Arteva</i> case for guidance on this issue. In <i>Arteva</i>, the Court of Appeals remanded the equipment leak provisions in the Group IV Polymers and Resins NESHAP (40 CFR Part 63, Subpart JJJ) (the “Group IV NESHAP”) because EPA had failed to assess cost effectiveness on a component basis. As explained in detail below, the APCD’s cost effectiveness analysis in the Regulatory Impact Assessment does not meet the standard for reasoned decision making that the Court articulated in <i>Arteva</i>.</p> <p>Unlike a cost effective sensory LDAR program, Section 1.21 requires a Method 21 instrument-based LDAR program for all components, including pumps, valves, connectors and many other components, along the lines of 40 CFR Subpart H. Under Section 1.21, however, the monitoring is not limited to equipment in a particular service, such as “light liquid” service. Accordingly, Section 1.21 requires the most costly form of monitoring for all components, regardless of the likelihood that they may leak, and for all services, regardless of volatility.</p> <p>The APCD RIA determined the cost effectiveness of the Section 1.21 LDAR provisions in a completely inadequate manner. Increased costs are described without reference to projected emission reductions. APCD has made no assertions regarding total expected emission reductions or cost per ton of reductions, much less any effort to review costs on a component by component basis.</p> <p>APCD’s estimated cost per ton of emission reduction for the entire STAR program is \$5000 to \$10,000 per ton. APCD makes no effort to characterize what the cost per ton ratio is for the LDAR program as a whole, much less on a component by component basis. This analysis is inadequate under <i>Arteva</i>.</p> <p>Rohm and Haas Company estimates that the cost for the enhanced LDAR program proposed in the regulations will be approximately \$800,000 <b>per year</b> per ton of emissions avoided. This far exceeds APCD’s estimate. If APCD had conducted a discrete cost effectiveness analysis pursuant to <i>Arteva</i>, it would have determined that the expanded Method 21 LDAR program is much higher than the estimates provided, and the component analysis would have been even worse for common components with low leak rates, such as connectors.</p> <p>Accordingly, the mandatory LDAR provision should be removed from the STAR program.</p>
3.1	<p>Each LDAR regulation specifies what components need to be included in the program. The various regulations are similar, but definitely not the same. Some specify that equipment that contains or contacts a process fluid that is at least 10% VOC must be included, others specify 10% VHAP (volatile HAP),</p>

	and still others use different percentages of VOC or VHAP. The LMAPCD regulations must keep the applicability as set up by the original LDAR regulation. Doing otherwise will result in a recordkeeping nightmare and no real benefit of reduced fugitive emissions.
3.1, 3.3, 3.4	These sections need to be removed from the regulation. These were pulled from the wastewater sections of other LDAR regulations. In those other regulations, these requirements were mandatory only if it was first demonstrated that sufficient VOCs or HAPs were present in the wastewater that would justify installing air emission controls on the system. If controls were justified then they were required to be installed and specific parts of the controlled system were covered by a LDAR program. The requirements to monitor water seal controls and process drains come from this context. Unfortunately by taking only part of the wastewater requirements, the proposed LMAPCD regulation requires monitoring of water seal controls and process drains regardless of whether VOCs or HAPs are present and regardless of whether a wastewater air emission control system is in place.
4.1	The requirement to complete a first attempt at repair for a leak > 10,000 ppm is reasonable for both environmental and safety reasons. However, if the first attempt at repair results in a reading of < 10,000 ppm, an allowance should be made to proceed with the 15 day repair period instead of the 7 day period. Repairs sometimes take multiple attempts, especially those that are initially leaking at high levels.
5.1	Shaft sealing systems should only be required of equipment that is covered by federal LDAR regulation. Some threshold amount must be used otherwise what amount of VOC or HAP is too little to require these seal systems? There is also diminishing returns as the VOC/HAP concentration becomes lower and lower. Shaft sealing systems can be expensive. To make changes in seal type sometimes the entire piece of equipment must be replaced, not just the seal. The resulting air emission reduction in going from 5-10% VOC/HAP to some de minimis concentration does not justify the cost.
3.1, 5.6 and 8.2	The LMAPCD should use federal regulation terms. The new terms serve no purpose and only result in confusion. Regulation 1.21 should use terms ... Hazardous air pollutant NOT organic compound Unsafe-to-monitor NOT Nonaccessible Difficult-to-monitor NOT Nonaccessible Vacuum service NOT continuous vacuum service
14	The intent and applicability of the Inorganic LDAR Program section is not clear. It reads as though any company with Inorganic TACs must develop an Inorganic LDAR Program and implement it. The LMAPCD's response to informal comments suggests otherwise. This section needs further explanation

	of applicability.
12	The required audit frequency is excessive. Auditing frequencies used by PSM, RMP and Responsible Care is either three or five years depending on the topic being audited. Rohm and Haas requests an initial audit within two years of the implementation of the LDAR program required by Regulation 1.21 and then subsequent audits every five years thereafter. This frequency would correspond to once every Title V permit term.

***Regulation 2.08 Emissions Fees, Permit Fees, Permit Renewal Procedures, and Additional Program Fees***

Section	Comment
General	This regulation does not specify how the TAC program fees will be calculated for 2006 on. Since it is not included here, Rohm and Haas expects future rulemaking will be necessary to cover future program costs. Also, the APCD was silent on this matter in the Regulatory Impact Assessment (RIA) where the costs of the STAR program should have been explained. The APCD has stated that outside funding sources that were available for 2005 are not expected in the future and that emission fees would have to be increased. This will probably mean more cost to Rohm and Haas but since no information has been included in either the regulation or the RIA we are unable to evaluate the impact.

***Regulation 3.01 Ambient Air Quality Standards***

Section	Comment
	none

***Regulation 5.01 Standards for Toxic Air Contaminants and Hazardous Air Pollutants***

Section	Comment
1.6.5	This section exempts emissions from a new or modified surface coating process, including a coating change, or process equipment, for which the potential volatile organic compound emissions are less than 5.0 tons per year. This exemption should be changed to include “any new or modified process” that emits less than 5 tons per year of VOCs. There is no justification to exempt only one type of operation since other operations can also be operated with emissions less than 5 tons per year. As proposed, this exemption is arbitrary.

1.7.4	This section exempts cold cleaners at stationary sources where they are the only source of emissions. This exemption should be changed to include cold cleaners at any source without regard to what other emissions are present at that stationary source. As proposed, this exemption is arbitrary.
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***Regulation 5.20 Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant***

Section	Comment
General	<p>It is proposed that one half of the OSHA established 8 hr exposure values be used as the Benchmark Ambient Concentrations (BAC) for non residential land use adjacent to a site subject to STAR.</p> <p>OSHA has established factors for people to temporarily (8 hours at a time) work every day around chemicals that provide an ample margin of safety without requiring any special protection. This proposal is to apply one half this factor for an ample margin of safety for the transient / temporary use of non residential adjacent property (streets, parking lots, industrial neighbors, etc.).</p> <p>Any associated risk from the inside-the-fence air does not go up by a factor of several thousand at the fence. The quality of the inside-the-plant air as well as the air at adjacent properties is dictated by fugitive emissions, not point sources.</p> <p>Any potential risk caused by fugitives, the ground level emissions that are below the OSHA safe working quantities, will be less beyond the fence. And an Epidemiological study has proven that Rohm and Haas Company in-plant air does not cause any increased risk of disease.</p> <p>At the nearest residence, the BACs would become those established by the national toxicology peer reviewed studies. While still maintaining an ample margin of safety, this proposal more closely reflects any potential risk originating from on-site ground level sources that may impact uninhabited adjacent property.</p>
General	<p>Ethyl acrylate should be removed from Category 1 since it has been delisted as a carcinogen by NTP.</p> <p>This regulation identifies carcinogens without using the current state of science or relevant data indicating otherwise. There is a heavy reliance on the IRIS database which in many cases is 10+ years out of date. A chemical is considered a carcinogen if it shows up on any list as a carcinogen no matter how old the data or the fact that it is de-listed from a peer-reviewed credible</p>

	governmental organization like the National Toxicology Program (NTP).
General	Many of the BAC derived from this methodology are at levels which are many times lower for many contaminants than exist in indoor environments (homes) and throughout most of the country in even non-urban areas. Reducing industrial emissions to these levels will have essentially no impact on the health of the community unless emissions are reduced from traffic and from indoor sources (like cooking, burning fireplaces, or smoking).
2	Determinations of whether a chemical is a carcinogen should be made only by agencies that use peer-reviewed scientific evidence and data. The regulation should only reference, the National Toxicology Program, the U.S. EPA Integrated Risk Information System, the International Agency for Research on Cancer (IARC) and the Agency for Toxic Substances and Disease Registry (ATSDR).
2.1	Delete this section. The four agencies listed above make decisions of whether a chemical is a carcinogen based on peer-reviewed scientific evidence and data. The District does not have and does not need to have the resources to do this.
3.3.5	The District must include the basis for assigning a value of 0.0004 ug/m <sup>3</sup> .
4.1	The BACnc is stated to be a lifetime effect. For carcinogens, an annual averaging time is appropriate since lifetime effects are considered. This should be the same for non-carcinogens. The use of a 24 hour averaging time is not appropriate.
4.2 to end of Section 4	Delete BACnc other equations because they are not demonstrated to be based on peer-reviewed scientific evidence or data.
4.2, 4.3, 4.4, 4.5	Averaging time should be annual – throughout Section 4. See comment for 4.1 above.
5	Delete this section. It is arbitrary because there is no basis for how the decision will be made. The four agencies listed above make decisions of whether a BACnc does not provide adequate protection from the acute effects of a chemical based on peer-reviewed scientific evidence and data. The District does not use this process. If acute effects are to be considered than a complete methodology for dealing with them needs to be provided (like EPA required in the WLAT).
5.4.5	Use of an OEL Ceiling value based on instantaneous acute effects (like irritation) is not appropriate to set an ambient air concentration.

5.4.9	Deriving an ambient air level (BAC) from an oral or inhalation acute lethality study is completely inappropriate no matter how big the UF (e.g., 2,000,000).
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***Regulation 5.21 Environmental Acceptability for Toxic Air Contaminants***

Section	Comment
1.1	The reference to limiting hours of operation in determining T-BAC should be deleted. This definition should specify technology, not limitations on hours of operation.
1.3 and 1.5	Existing processes should include those that have construction permit applications submitted prior to the effective date of the regulation. New or modified processes would then include those that have construction permit applications submitted after the effective date of the regulation.
2	Rohm and Haas agrees with ambient goals and standards for environmental acceptability for TACs as proposed by GLI, as well as the levels set out for Board approval. The allowed maximum concentration shall not exceed an EAL of $1 \times 10^{-4}$ or an EAL non-cancer HQ of 20 without Board approval of a variance.
2.8	The District is focusing on chronic effects for both carcinogens and non-carcinogens, therefore the only appropriate averaging time is annual.
4.11	This section does not explain how the District will know what company is responsible for the emissions leading to the exceedance of the limit.

***Regulation 5.22 Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant***

Section	Comment
1.2	The procedure to use if the average rate for an intermittent release is less than 10% of the maximum is not specified.
Add 1.3.5	Add a Tier 5 that would allow using an EPA-approved human exposure model. This type of model uses the same air dispersion modeling as described in Tier 4, and then applies exposures to census tract population profiles. This provides a truer assessment of human exposure risk. At a minimum, the modeling results should look at the nearest resident, not the fenceline.
2.2, 3.5,	The District must provide the technical basis for the factors in Table 1 and

4.2, and 5.2	Sections 3.5 and 4.2. Also, the regulations apply only to chronic affects so no averaging time other than annual is appropriate. The reference to averaging times other than annual should be changed in Sections 2.2, 3.5, 4.2 and 5.2.
3.7.2	The District must provide the technical basis for assigning the stack height to be 40% of the actual height.
3.7.4 and 3.8	The EPA ISC dispersion model does not calculate a concentration if the distance is less than 3 times the height of the building. As an example, for a source with a building height of 20 feet (quite common), the model would not give a concentration at 25 feet. If EPA's dispersion model would not be applicable at less than 3 times the building height, then there does not seem to be a technical basis for the values in Table 2 for these distances.
5.1	For Tier 4, specify that "maximum concentration" means the arithmetic mean of the maximum ambient concentrations of the TAC at the centroid of the nearest off-site census tract, or at a minimum, the nearest resident.
Add	Add a section that allows an adjustment factor for fugitive emissions for use in Tier 3, 4 and 5 models. Air dispersion models are intended for analysis of point source emissions. Because of this, these models overestimate the impact of fugitive emissions. The regulation should cite <i>Modeling Adjustment Factor for Fugitive Emissions</i> , Texas Natural Resource Conservation Commission, March 6, 2002.

***Regulation 5.23 Categories of Toxic Air Contaminants***

Section	Comment
General	<p>Only the 18 chemicals of concern identified by the West Louisville Air Toxics Risk Assessment (WLAT) should be included in the STAR program. The WLAT monitored for many chemicals and only 18 were found to be at levels of concern. Many of the chemicals included in Categories 2, 3 and 4 of Regulation 5.23 were also included in the WLAT study. The levels of eight chemicals handled by Rohm and Haas were found by the study to NOT be of concern, yet they are still included in Categories 2 and 4. If, as the study found, the levels of these chemicals do not pose an increased health risk to the community then they should not be included in Regulation 5.23.</p> <p>The Regulatory Impact Assessment states that these other chemicals are included on an EPA list of compounds identified as presenting significant risk to public health in urban areas, so they should be included in the STAR program. However, EPA's list is a general list for all urban areas. The primary reason to undertake the WLAT study was to find out what chemicals</p>

	<p>present significant risk to the public in Jefferson County. Only those chemicals that have been shown to pose an increased health risk to the public in Jefferson County should be included.</p> <p>The RIA also states that the other included chemicals may pose a health risk to the community in the future. This is not an adequate reason to include them now. They have been shown to not pose a risk now and there is no way of knowing that these particular chemicals will pose a risk in the future. Including them in the program now is arbitrary and will not improve the health of the community.</p>
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***Regulation 5.30***

<b>Section</b>	<b>Comment</b>
2.1	<p>The District should include major stationary sources in its Report and Plan of Action. The regulation, as written, will only address minor stationary sources, area sources, non-road mobile sources, and mobile sources. Major stationary sources need to be included so that a complete assessment of the risk to human health and welfare from ambient concentrations of TACs in Jefferson County can be made. This assessment should have been the first step that the District took to deal with the air toxics issue. Only after an evaluation of the source sectors and their relative ambient air risk is completed can an appropriate plan of action be developed.</p>